

Bilateral inguinal hernias containing ovaries

Gurudutt Bhaskar Basrur

Grant Medical College & Sir J.J. Group of Hospitals, Byculla, Mumbai, India

Abstract

Inguinal hernias are rare in females. The authors report a case of bilateral inguinal hernias in a 10-year-old female. On exploration, the patient was found to be having a sliding hernia containing incarcerated ovary as contents on both sides. Peroperatively the contents were reduced, the sac was transfixed at its base and the redundant sac was excised. The repair of this form of hernias is more difficult because of adhesions between the contents and the wall of the sac and risk of damage during dissection. A description of this clinical presentation in the pre operative assessment and operative management are discussed in this report.

Introduction

The incidence of inguinal hernia in females is 1.9%, the ratio of boys to girls being 6:1.¹ The site of presentation being 68.1% on the right side, 23.4% on the left and 8.5% bilateral.² About 15-20% hernias in infant girls contain ovary and Fallopian tube.³ The incidence of indirect hernia relates to congenital weakness at the internal inguinal ring. The sac is formed by the unobliterated portion of the prenatal peritoneal invagination of the canal of Nuck that runs along and partly covers the round ligament. Around 15% of the childhood hernias are incarcerated, especially those in young infants. A case of bilateral inguinal hernia in a female of 10 years old is reported below. The peculiarity of this work lies in the infrequency of its occurrence in females.

Case Report

A 10-year-old female child presented to our Outpatient Department (OPD) at St. George hospital along with her mother with bulge on both groin of 8 months duration. The swelling appeared on straining, on coughing and laughing and was reduced on lying down. There was no history suggestive of irreducibility or obstruction. The child was born full term normal delivery and there were no significant

findings in the history. On examination there was bilateral non-tender inguinal swelling (Figure 1). The swelling was reducible. There was expansible impulse on coughing and internal ring occlusion test was positive (Figure 2). Routine investigations were normal. Ultrasound confirmed bilateral inguinal hernia with ovaries as contents on both sides (Figure 3).

On exploration, patient was found to be having a sliding hernia containing incarcerated ovary as contents on both sides. There was no Fallopian tube in the hernia sac. The ligament along the hernia sac resembling female gubernaculum was also seen. The contents were reduced back into the peritoneal cavity after division of the external ring, as there were no signs of strangulation. The sac was transfixed at bases and redundant sac was removed. The wound was closed in layers without keeping drain. The child had uneventful postoperative period and was discharged after removal of sutures. The patient was followed up in surgical OPD and there was no recurrence after six months.

Discussion

Virtually nothing is known about the risk factors for inguinal hernia in females. High sports activity is protective in inguinal hernia. Once the diagnosis of inguinal hernia in a female is made, repair should be carried out promptly because incarceration occurs in the first year of life.⁴ Sliding hernias of the tube, ovaries and the uterus occurs occasionally in newborn female infants and some authors suggest ultra sonography for the diagnosis of inguinal hernia in premature female infants.⁵ In our case the pre operative diagnosis of ovaries bilaterally in hernial sac was seen on sonography. An incarcerated ovary in a girl is usually a part of a sliding hernia. The mesenteric attachment of tube and the ovary frequently form part of the hernia sac in girls.⁶ In our case the contents were only ovary, which could be due to a long ovarian ligament and broad ovarian mesentery.

The ligament which runs along an inguinal hernia sac in females is believed to be round ligament of uterus, is actually the suspensory ligament of the ovary and terminates in the hernia sac.⁷ As seen in our case wherein the ligament was seen along the hernia sac. It is supposed to be female gubernaculum that has altered anatomy and localization because of absence of androgen responsiveness. Its modified presentation in a processus vaginalis raises the suspicion that ovary in the hernia sac may not be simply prolapsed, but is a descended gonad mimicking the descent of the testis.⁸ The sac wall may seem too thick in the medial

Correspondence: Gurudutt Bhaskar Basrur, Grant Medical College & Sir J.J. Group of Hospitals, Byculla, Mumbai 400008, India.
E-mail: gurudutt58@hotmail.com

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Figure 1. Bilateral inguinal hernia in standing position.



Figure 2. Bilateral inguinal hernia in supine position with active cough impulse.



Figure 3. Ultrasonography of left inguinal region showing left ovary as a content.

or lateral quadrants in these cases and there may be difficulty in reducing the contents back within the peritoneal cavity. The sac should be opened in the normal appearing portion, and the walls inspected for a sliding component. The mesenteric attachment of the inner sac wall is divided in the bloodless plane within the sac. The freed up tube and the ovary is then reduced easily with no compromise in the blood supply and the neck of the sac is closed in the usual way. Since the tubes were not present in the sac, we were able to reduce the ovaries easily intra peritoneally and excise the sac after ligation at neck. Immediate operation should be done in all patients who are ill with obstructed or locally inflamed hernia, without attempting reduction.

Approximately 1.6% of these children presenting with inguinal hernia and having apparent female genitalia prove to be of male nuclear sex with intra-abdominal testes but female anatomy and endocrine function-complete androgen insensitivity syndrome previously called the testicular feminization syndrome.⁹ Skilled pediatric advice should be sought where such anomalies are found.

Conclusions

All inguinal hernias in females occur as indirect protrusions. The possibility sliding hernias containing genital structures such as ovaries, fallopian tubes or even the uterus should be kept in the mind in all female hernia. The inguinal hernia in females should raise the surgeon's suspicion about the child's nuclear sex, particularly if the condition is bilateral. All female inguinal hernias should undergo ultra sonography to prove the presence of ovaries in the sac. If ovaries form the contents of the sac then a immediate surgery is required to avoid complications.

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